

Please amend the claims as follows:

1. – 43. (Cancelled)

44. (Currently Amended) An isolated nucleic acid molecule comprising: a first ribonucleotide (RNA) sequence wherein said first RNA sequence is greater than of greater than 20 consecutive and up to 100 nucleotides in length, and wherein said first RNA sequence which is identical to a in sequence complementary to a region of a transcript of a target gene in a eukaryotic cell, and

a second RNA sequence wherein said second RNA sequence which is complementary to said first RNA sequence,

wherein said nucleic acid molecule is capable of post transcriptionally repressing, delaying or otherwise reducing expression of the target gene in a mammalian cell when the nucleic acid molecule is introduced into said mammalian cell wherein the expression of the target gene is reduced by sequence-specific degradation of a RNA transcript of the target gene by an endogenous system of the mammalian cell, and wherein the first RNA sequence and the second RNA sequence are transcription products of a construct comprising a transcription terminator sequence that is operable in the mammalian cell the first and the second RNA sequences are in the same nucleic acid strand and are separated by a stuffer fragment which comprises a sequence of nucleotides.

45. – 76. (Cancelled)

77. (New) The nucleic acid molecule of claim 44, wherein the target gene is a viral gene.
78. (New) The nucleic acid molecule of claim 44, wherein the target gene is a nucleotide sequence of a viral pathogen of a plant.
79. (New) The nucleic acid molecule of claim 78, wherein the viral pathogen is a potyvirus, caulimovirus, badnavirus, geminivirus, reovirus, rhabdovirus, bunyavirus, tospovirus, tenuivirus, tombusvirus, luteovirus, sobemovirus, bromovirus, cucomovirus, ilavirus, alfamovirus, tobamovirus, tobaviruses, potexvirus or clostrovirus.
80. (New) The nucleic acid molecule of claim 44, wherein the target gene is a nucleotide sequence of a viral pathogen of an animal cell.
81. (New) The nucleic acid molecule of claim 80, wherein the viral pathogen is a retrovirus.
82. (New) The nucleic acid molecule of claim 80, wherein the viral pathogen is an immuno deficiency virus.
83. (New) The nucleic acid molecule of claim 44, wherein the target gene is a nucleotide sequence of a single-stranded (+) RNA virus.
84. The nucleic acid molecule of claim 44, wherein the target gene is a nucleotide sequence of a double-stranded DNA virus.

85. (New) The nucleic acid molecule of claim 44, wherein the target gene is a transgene in the eukaryotic cell.
86. (New) The nucleic acid molecule of claim 44, wherein the target gene is a member of a multigene family in the eukaryotic cell.
87. (New) The nucleic acid molecule of claim 44, wherein the target gene is an endogenous gene of the eukaryotic cell.
88. (New) The nucleic acid molecule of claim 44, wherein the eukaryotic cell is a plant cell.
89. (New) The nucleic acid molecule of claim 88, wherein the plant is a monocotyledonous plant or a dicotyledonous plant.
90. (New) The nucleic acid molecule of claim 44, wherein the eukaryotic cell is an animal cell.
91. (New) The nucleic acid molecule of claim 90, wherein the animal is a vertebrate animal.
92. (New) The nucleic acid molecule of claim 90, wherein the animal is an invertebrate animal.

93. (New) The nucleic acid molecule of claim 90, wherein the animal is an aquatic animal.
94. (New) The nucleic acid molecule of claim 90, wherein the animal is an insect.
95. (New) The nucleic acid molecule of claim 90, wherein the animal is a fish.
96. (New) The nucleic acid molecule of claim 90, wherein the animal is an avian animal.
97. (New) The nucleic acid molecule of claim 90, wherein the animal is a mammal.
98. (New) The nucleic acid molecule of claim 44, wherein the eukaryotic cell is a human cell.
99. (New) The nucleic acid molecule of claim 44, wherein the region of the transcript corresponds to coding regions of the target gene.
100. (New) The nucleic acid molecule of claim 44, wherein the region of the transcript corresponds to a 5'- or 3'- untranslated sequence of the target gene.
101. (New) The nucleic acid molecule of claim 44, wherein the nucleic acid molecule comprises an intron.

102. (New) The nucleic acid molecule of claim 44, wherein the stuffer fragment is a sequence of nucleotides 10-50 nucleotides in length, 50-100 nucleotides in length, or 100-500 nucleotides in length.
103. (New) The nucleic acid molecule of claim 44, wherein the stuffer fragment comprises an intron.
104. (New) The nucleic acid molecule of claim 44, wherein the total length of the nucleic acid molecule is no more than 2.0 kilobases.
105. (New) The nucleic acid molecule of claim 104, wherein the total length of the nucleic acid molecule is no more than 0.5 kilobases.
106. (New) The nucleic acid molecule of claim 44, which is naked RNA
107. (New) The nucleic acid molecule of claim 44, which is encapsulated in a liposome.
108. (New) The nucleic acid molecule of claim 44, which is in a virus particle which is an attenuated virus or associated with a virus coat.
109. (New) The nucleic acid molecule of claim 44, which is comprised in a recombinant viral vector.

110. (New) The nucleic acid molecule of claim 44, which is in a cell.
111. (New) A composition comprising a carrier, excipient or diluent acceptable for human or veterinary applications and the nucleic acid molecule of claim 44.
112. (New) A synthetic genetic construct comprising a promoter which is operable in a eukaryotic cell, operably linked to a nucleotide sequence encoding the nucleic acid molecule of claim 44.
113. (New) The synthetic genetic construct of claim 112, which is in a eukaryotic cell.
114. (New) A eukaryotic cell comprising a non-endogenous nucleic acid molecule comprising a first ribonucleotide (RNA) sequence of greater than 20 consecutive nucleotides which is identical in sequence to a region of a transcript of a target gene in the eukaryotic cell, and a second RNA sequence which is complementary to said first RNA sequence, wherein the first and the second RNA sequences are in the same nucleic acid strand and are separated by a stuffer fragment which comprises a sequence of nucleotides.
115. (New) The eukaryotic cell of claim 114, which is a multicellular plant cell.
116. (New) The eukaryotic cell of claim 115, which is a monocotyledonous plant cell or a dicotyledonous plant cell.

117. (New) The eukaryotic cell of claim 115, which is in a transgenic plant.
118. (New) The eukaryotic cell of claim 114, which is an animal cell.
119. (New) The eukaryotic cell of claim 118, wherein the animal is a vertebrate animal.
120. (New) The eukaryotic cell of claim 118, wherein the animal is an invertebrate animal.
121. (New) The eukaryotic cell of claim 118, wherein the animal is an aquatic animal.
122. (New) The eukaryotic cell of claim 118, wherein the animal is an insect.
123. (New) The eukaryotic cell of claim 118, wherein the animal is a fish.
124. (New) The eukaryotic cell of claim 118, wherein the animal is a bird.
125. (New) The eukaryotic cell of claim 118, wherein the animal is a mammal.
126. (New) The eukaryotic cell of claim 114, wherein the eukaryotic cell is a human cell.
127. (New) The eukaryotic cell of claim 114, wherein the eukaryotic cell is a somatic cell.

128. (New) The eukaryotic cell of claim 114, wherein the eukaryotic cell is a haematopoietic stem cell.
129. (New) The eukaryotic cell of claim 114, wherein the eukaryotic cell is a T-cell.
130. (New) The eukaryotic cell of claim 114, wherein the eukaryotic cell is in tissue culture.
131. (New) The eukaryotic cell of claim 114, wherein the nucleic acid molecule is present as an extrachromosomal nucleic acid.
132. (New) The eukaryotic cell of claim 114, wherein the nucleic acid molecule is produced in the cell by transcription of a synthetic gene comprising a promoter that is functional in the eukaryotic cell operably connected to a nucleotide sequence encoding the nucleic acid molecule.
133. (New) The eukaryotic cell of claim 132, wherein the promoter is heterologous with respect to the nucleotide sequence encoding the first RNA sequence.
134. (New) The eukaryotic cell of claim 132, wherein the promoter is capable of functioning in an animal cell.
135. (New) The eukaryotic cell of claim 132, wherein the promoter is a constitutive promoter.
136. (New) The eukaryotic cell of claim 132, wherein the promoter is an inducible promoter.

137. (New) The eukaryotic cell of claim 132, wherein the promoter responds to external stimuli.
138. (New) The eukaryotic cell of claim 132, wherein the synthetic gene further comprises a transcription terminator sequence.
139. (New) The eukaryotic cell of claim 117, wherein the transgenic plant has a reduced level of expression of the target gene.
140. (New) The eukaryotic cell of claim 117, wherein the transgenic plant exhibits virus resistance.
141. (New) The eukaryotic cell of claim 139, wherein the target gene is an endogenous gene.

RECEIVED  
CENTRAL FAX CENTER

NOV 20 2006

Summary of the Substance of the Interview

Applicants thank the Examiner for extending the courtesy of an interview on November 6, 2006. Below please find Applicants' Statement of the Substance of the Interview.

An interview took place between Examiner Richard Schnizer and Applicants' representatives Scott Chambers and Kellie Carden on November 6, 2006. The interview participants addressed the new matter rejections and the addition of the limitations "greater than 20 consecutive nucleotides", "stuffer fragment" and "eukaryotic cell" to claim 44. Applicants' representatives drew the Examiner's attention to the portions of the priority documents which provide support for the claim amendments and new claims. The Examiner indicated that he believed that the amendments would overcome the new matter rejections.

Examiner Schnizer then discussed the possibility of a further restriction requirement. Mr. Chambers and Mrs. Carden explained to the Examiner that this application was a national stage application filed under 35 USC 371. Thus, they believed the unity of invention (not restriction) practice is applicable, as set forth in Caterpillar Tractor Co. v. Comm. of Patents and Trademarks, 650 F. Supp. 218, 231 USPQ 590 (E.D. Va. 1986).

Applicants' representatives indicated to Examiner Schnizer that Reexamination Proceedings were currently underway in a related application.

The interview participants then discussed the prior art reference Agrawal *et al.* (WO 94/01550). Dr. Chambers and Mrs. Carden explained that Agrawal *et al.* did not disclose or claim the stuffer fragment of applicants' presently claimed invention. Examiner Schnizer agreed that this could be a distinguishing feature.